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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,045	04/09/2004	Masayuki Arakawa	501646.20005	2252

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REED SMITH, LLP
ATTN: PATENT RECORDS DEPARTMENT
599 LEXINGTON AVENUE, 29TH FLOOR
NEW YORK, NY 10022-7650

EXAMINER

MRUK, GEOFFREY S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,045

Applicant(s)

ARAKAWA ET AL.

Examiner

Geoffrey Mruk

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/12/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 1-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 28 June 2006.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claim 13 objected to because of the following informalities: Claim 13 states “a sheet member put immediately on the sheet member on which the filter is disposed has a hole in which the filter is fitted”. Claim 13 is indefinite in that it fails to point out what is included or excluded within the layered structure of the passage unit. Second, the phrase “a sheet member put immediately on the sheet member” seems to be claiming a sheet member put on itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US 5,489,930).

With respect to claim 9, Anderson discloses an ink-jet head (Column 1, lines 10-17) comprising:

- a joint member (Fig. 2, element 20) having an ink pathway (Fig. 2, element 58) through which ink supplied from an ink supply source passes (Column 4, lines 25-28), an ink outlet port (Fig. 2, geometry of element 58) formed at one end of the ink pathway, and a space (Fig. 2 below) which is formed in the vicinity of the one end of the ink pathway and whose cross-sectional shape and size in a direction perpendicular to an ink flow direction toward the ink outlet port are constant along the ink flow direction (Fig. 2 below);
- a passage unit (Fig. 2, elements 22, 24, 26, 28, 30, 32, 34) having a plurality of nozzles (Fig. 2, element 44) that eject ink, an ink receiving port (Fig. 2, geometry of element 60) that is larger than the ink outlet port and receives the ink flowing out of the ink outlet port, a first ink passage (Fig. 2, element 60) that has, at one end thereof, the ink receiving port and extends in the same direction as the ink flow direction toward the ink outlet port, and a second ink passage (Fig. 2,

element 62) that extends from the other end of the first ink passage to the nozzles, the passage unit being connected to the joint member such that the ink receiving port confronts the ink outlet port; (Column 4, lines 29-61) and

- a filter (Fig. 2, element 12) disposed within the first ink passage (Fig. 2, element 22, 24) of the passage unit, wherein:
- a first space (Fig. 2 below) is formed between the ink receiving port and the filter, a cross-sectional shape and size of the first space in the direction perpendicular to the ink flow direction being constant along the ink flow direction;
- a second space (Fig. 2 below) is formed on a downstream side of the filter within the first ink passage, a cross-sectional shape and size of the second space in the direction perpendicular to the ink flow direction being constant along the ink flow direction; and the first space and the second space are contiguous to each other with the filter interposed therebetween (Fig. 2 below).

With respect to claim 10, Anderson discloses the first space is shorter in the ink flow direction than the second space (Fig. 2 below).

With respect to claim 11, Anderson discloses the first space is longer in the ink flow direction than the second space (Fig. 2 below).

With respect to claim 12, Anderson discloses a flow regulator (Fig. 2, elements 100, 102) is formed on the downstream side of the filter within the first ink passage, and is located at a downstream end of the second space.

With respect to claim 13, Anderson discloses the passage unit has a layered structure of a plurality of sheet members with holes formed therein, the holes

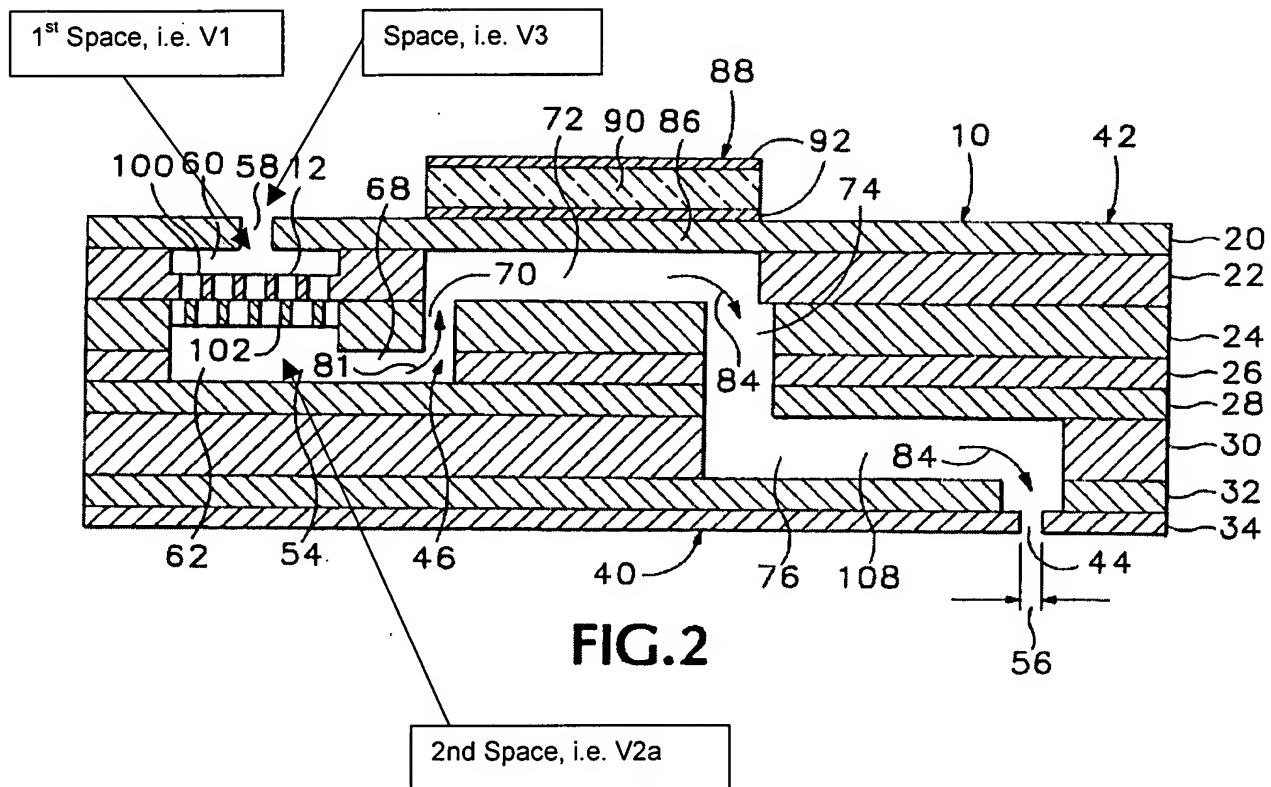
constituting the plurality of nozzles, the ink receiving port, the first ink passage, and the second ink passage (Fig. 1A and Fig. 1B);

- the filter (Fig. 2, element 12) is disposed at a position, on one of the plurality of sheet members, to cover a hole formed in the one sheet member and corresponding to the first ink passage; and
- a sheet member put immediately on the sheet member on which the filter is disposed has a hole in which the filter is fitted (Fig. 2 below).

With respect to claim 14, Anderson discloses the passage unit (Fig. 2, elements 22, 24, 26, 28, 30, 32, 34) has a layered structure of a plurality of sheet members with holes formed therein, the holes constituting the plurality of nozzles, the ink receiving port, the first ink passage, and the second ink passage (Fig. 1A and Fig. 1B);

- the filter (Fig. 2, element 12) is disposed at a position, on one of the plurality of sheet members, to correspond to the first ink passage; and
- a hole (Fig. 2, element 100) corresponding to the first ink passage and formed in another one of the sheet members spaced from the filter on the downstream side is smaller than other holes corresponding to the first ink passage and formed in other sheet members (Fig. 2, elements 60, 62).

Art Unit: 2853




Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GSM
7/19/2006



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER